

# Ultralight Manual Expandable FlyAway Terminal

The newly enhanced 75cm Model 0715 Ultra-Light Manual Expandable FlyAway Terminal is upgradeable to a 98cm 0915 ultra-lightweight manual point flyaway. The terminal includes a rugged and sturdy positioner and folding tripod with course and fine adjustments and easy-to-read scales for Az/EI/Pol adjustments. The six-piece 75cm reflector is optimized for a tri-band terminal with X-, Ku, and Ka-band RF kits that snap into place with no tools or adjustment needed. Band changes can be accomplished in less than one minute. The hub, reflector segments, and feed can quickly be replaced to upgrade the system to a 98cm tri-band terminal. The terminal packs into one or two IATA-compliant cases including ancillary equipment.

## FEATURES

- ◆ 75cm 6-piece / 98cm 8-piece AvL carbon fiber reflector with an aluminum hub
- ◆ Lightweight manual antenna with integral base and folding tripod
- ◆ Unique elevation, azimuth, and polarization positioner
- ◆ Packs in 1 or 2 airline checkable cases (configuration dependent)
- ◆ < 5-minute set-up for 75cm or <10-minutes for the 98cm
- ◆ 2-port Ku-band precision feed
- ◆ Optional feeds: 2-port X-band, 2-port Ka-band wideband
- ◆ Manual point assist tools
- ◆ MIL-STD-188-164C Compliant



Specifications	Mechanical
Reflector construction	Segmented carbon fiber with an aluminum hub
Axis Travel	
Azimuth	360 degrees continuous
Elevation (reflector boresight)	+5-95 degrees
Polarization	+/- 95 degrees
RF interface	
BUC/LNB mounting	Rear of reflector
RF connections	Coax connectors
Electrical interface	24V, 48V or wideband power input with Ethernet M&C
Assembled weight	75 cm - < 30 lbs, 98cm -< 35 lbs.
Pack-up	75 cm single case / backpack; 98cm 2 cases / backpacks with side

Specifications	Environmental
Wind – survival (anchored)	45 mph (72 kph)
Wind – Operational	30 mph (48 kph) gusting to 45 mph (72 kph)
Without anchoring	15 mph
With anchoring	30 mph gusting to 45 mph
Pointing loss in wind:	
Ka-band receive	1 dB typical, 2 dB max
Temperature:	
Operational	-22°F to 125°F (-30°C to 52°C))
Survival	-40°F to 140°F (-40°C to 60°C)

日本総代理店  
 スカイネットワーク株式会社  
 千葉県花見川区犢橋町320-5  
 TEL 043-259-6921 FAX 043-259-1527  
 webinfo@skynetwork.jp

# Ultralight Manual Expandable FlyAway Terminal

RF Parameters	Standard 2-Port Ku-Band Precision		Opt. 2-Port X-Band (MIL/WGS)		Opt. 2-Port Ka-Band MIL	
	Receive	Transmit	Receive	Transmit	Receive	Transmit
Frequency Range (GHz)	10.95 - 12.75	13.75-14.50	7.25 - 7.75	7.90 - 8.40	20.2 - 21.2	30.0 - 31.0
Polarization Configuration	Linear orthogonal standard, optional co-pol		RHCP or LHCP		Circular (opt. linear feed available)	
75 cm Gain (mid-band)	37.1 dBi	39.2 dBi	33.4 dBi	34.2 dBi	42.2 dBi	45.5 dBi
98 cm Gain (mid-band)	39.7 dBi	41.0 dBi	35.6 dBi	36.0 dBi	44.5 dBi	47.2 dBi
-3dB Beamwidth (mid-band)	2.4°	2.0°	3.7°	3.4°	1.4°	0.9°
Radiation pattern compliance	FCC 25.209 outside main beam ITU-R S.580-6, IESS 208		MIL-STD-188-164C		FCC 25.209, MIL-STD-188-164C	
EIRP (75cm / 98cm): X Band SSPA 22.4W linear				47.3/49.0 dBW		
EIRP (75cm / 98cm): Ku Band SSPA 8W linear		47.9/49.8 dBW				
EIRP (75cm / 98cm): Ku Band SSPA 16W linear		50.9/52.8 dBW				
EIRP (75cm / 98cm): Ka Band SSPA 12.6W linear						55.8/57.5 dBW
Power handling capacity		75W		100W		50W
75 cm G/T, mid-band, 20° EL, clear horizon	15.8 dB/° K (50° LNB)		12.2 dB/° K (55° LNB)		18.2 dB/° K (100° LNB)	
98 cm G/T, mid-band, 20° EL, clear horizon	18.5 dB/° K (50° LNB)		14.6 dB/° K (55° LNB)		20.5 dB/° K (100° LNB)	
Antenna noise temp. mid-band, 20°EL (incl. TRF)	66° K		65° K		105° K	
VSWR	1.30:1	1.30:1	1.30:1	1.30:1	1.30:1	1.30:1
Axial ratio CP only, within pointing cone (dB)			2.0 dB	2.0 dB	1.5 dB	1.0 dB
Cross-Polarization Isolation (Ku only)						
On axis (minimum)	35 dB	35 dB				
Within pointing cone	35 dB	35 dB				
Feed Port Isolation (Tx to Rx)	35dB	80dB (incl. filter)	115 (incl. opt. filter)	115 (incl. opt. filter)	80dB	80dB (incl. filter)

## Options

- ◆ Customer-furnished ODU/modem integration
- ◆ Customer-furnished BUC/LNB integration
- ◆ Computer assisted manual pointing tools
- ◆ High stability 10MHz timing reference
- ◆ Wind anchoring options: ground stakes or sandbags
- ◆ Optional soft sided ballistic nylon cases
- ◆ Additional feed band cases
- ◆ Add custom logo on reflector face (1- or 2-color, per AvL logo policy)
- ◆ Spare parts kit

## Upgrades & Services

日本総代理店  
 スカイネットワーク株式会社  
 千葉県花見川区犢橋町320-5  
 TEL 043-259-6921 FAX 043-259-1527  
 webinfo@skynetnetwork.jp